

REMARKS

Claims 1-14 are pending in this present application. In the Office Action mailed on February 2, 2006, the Examiner objected to claims 1 and 9 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Reconsideration of the § 112 rejection is respectfully requested because Applicant believes this rejection is improper.

Specifically, the method of independent claim 1 calls for establishing an Internet Protocol (IP) quality of service session between a correspondent node and a mobile node. The mobile node has a home address in a home network and being temporarily connectable in a foreign network having a foreign agent associated with at least one further mobile node. The IP packets are directed to the mobile node from the correspondent node via the home network. The quality of service session may be maintained based on flow identification information in the IP packets. The method includes determining whether the flow identification information of a quality of service session to be configured matches the flow identification information of an existing quality of service session. The Examiner asserts that an essential feature is not recited in the claim language. In particular, the Examiner alleges that Applicant on page 6, lines 20-26 describes a proxy server (Figure 12, #144, Fn PS) located in the foreign network to be an “essential requirement,” which is not included in claims 1 and 9. Applicant respectfully disagrees and respectfully traverses the § 112 rejection of claims 1 and 9.

As the Examiner well knows, under the requirement for particularity and distinctness in claim language, *i.e.*, definiteness in claiming in view of the § 112, second paragraph, it is not necessary that the claims recite the details of use of the invention set out in the Specification. In fact, in the absence of evidence from Applicant to the contrary, the claims must be presumed to be what Applicant regards to be their invention. Moreover, breadth alone does not make a claim

indefinite. So long as the language used defines the invention with a reasonable degree of particularity and distinctness, a claim may in general, be drawn as broadly as the prior art will allow. See M. P. E. P. § 706.03(d). It is also well settled that a choice of wording is not a basis for objection and rejection as long as it is definite and not inconsistent with accepted terminology in the art. If patentable novelty is disclosed and it is apparent that the claims are directed to such patentable subject matter, some latitude in the manner of expression and the aptness of terms is permitted even though the claim language is not as precise as the Examiner might desire. See M. P. E. P. § 706.03(d).

With regard to the § 112 rejection, it appears to be based upon the following incorrect assumptions: that the proxy server is not "specifically identified in the application as filed to be used in one particular implementation of an embodiment of the present invention (See originally filed claim 1, which constitutes part of the Applicant's Specification)"; that only "embodiments using the proxy server" are described; and that "no embodiment is identified in the application as filed to not use the proxy server." See the Applicant's Specification at page 16, at lines 5 and 16. By way of example, Applicant respectfully invites the Office to reconsider the Specification as filed, particularly in light of the two paragraphs on page 16, at lines 5 and 16 that describe "In this implementation, ..." and "In addition..." respectfully. Based upon the above legal standards, Applicant respectfully submits that claims 1 and 9 are clear and request that the Examiner's rejections be withdrawn.

In the Office Action, claims 1-4, 8-10, 12, and 13 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,407,988 to Agraharam, et al. (**Agraharam**) in view of U.S. Patent No. 6,073,016 to Hulthen, et al. (**Hulthen**). The Applicant respectfully traverses the Examiner's rejection of the pending claims.

With regard to independent claim 1, the Applicant describes and claims, among other things, determining whether the flow identification information of a quality of service session to be configured matches the flow identification information of an existing quality of service session. The Examiner admits that *Agraharam* is completely silent with regard to the determining feature, as set forth in claim 1 and argues that *Hulthen* describes the determining feature.

As to the determining feature, the Examiner alleges that *Hulthen* indeed discloses flow identification information in the IP packets that are directed to the mobile node [fig. 4A, col. 9, lines 8-10]. The Examiner further asserts that *Hulthen* discloses a header (fig. 4A, #202) containing a “temporary address or identification code” assigned by a host computer [col. 9, lines 8-20]. Based on these purported teachings, the Examiner concludes that *Hulthen* discloses comparing particular proposed flow identification information (available identification code requested by mobile terminal) to flow identification information already in use (fig. 7A) [col. 10, lines 22-41, col. 15, lines 27-54]. The Applicant respectfully disagrees.

Responding to the Applicant’s contention that *Hulthen* does not compare the flow identification information of a quality of service session to be configured to the flow identification information of an existing quality of service session, the Examiner argued in the Final Office Action that such a feature is taught at Col. 10, lines 22-41 and Col. 15, lines 27-54. See Final Office Action, page 7. The first cited passage states “checks to see if the mobiles ID with which the mobile communication unit 66 is requesting a session is currently available” and “requesting the session matches the mobile ID stored in table 7A.” As can be seen, this passage is referring to the mobile ID, which the Examiner mistakenly argues corresponds to flow identification information in the IP packets of the claimed invention. However, in the cited

passage, the mobile ID is used to request a session, not to configure a quality of service session using flow identification information. Thus, contrary to the Examiner's assertions, the cited passage does not teach use of the flow identification information of a quality of service session in the IP packets to configure the quality of service session.

The second cited passage states "table in 7A lists each mobile communication unit 66 currently assigned an identification code by the host computer 60. The host computer 60 can keep track of the mobile communication units 66 within the system and permit or deny access to the network based on the identification code and the 32-bit random number." As can be seen, this passage is referring to a mobile communication unit 66 having two codes or numbers, one of which is an assigned identification code and the 32-bit random number and the other being generated by the mobile communication unit 66 itself. By allocating the identification code and generating the random number, in *Hulthen*, a session may be started with the host computer 60 or other device coupled to the network for the mobile communication unit 66.

With regard to whether the temporary ID is unique, the Examiner asserts that the temporary ID of *Hulthen* is indeed a unique piece of information associated with a particular request. The Examiner argues that since *Hulthen* discloses that the mobile communication unit is identifiable and distinguishable to the network with respect to other mobile communication units [col. 9, lines 43-50, col. 14, lines 59-65], *Hulthen* indeed designates a unique identification. As to assigning temporary flow identification information, Applicant respectfully disagrees with the Examiner's position.

Hulthen describes that a mobile communication unit may select the same temporary ID that another mobile communication unit has selected for a pending request. See *Hulthen* col. 10, lines 57-63. By selecting a temporary mobile ID code, the mobile communication unit requests

the host computer to assign it a unique mobile ID code for future use. The processor 103 checks to see if the temporary mobile ID with which the mobile communication unit 66 is requesting a session is currently available as determined by reviewing the table of available identification code. See *Hulthen*, col. 10, lines 11-13, and lines 22-26. However, the temporarily mobile ID, which the Examiner alleges corresponds to the “temporarily flow identification information” of the claimed invention, is not assigned to a quality of service session to be configured.

The Examiner further alleges that *Hulthen* indeed discloses allocating temporary flow identification information [col. 9, lines 51-58]. In the support, the Office cites claim 9 of *Hulthen*, which discloses:

“- - at least one processor in the communication system for determining if the at least one mobile terminal is requesting an available identification code be assigned, wherein the processor is capable of attempting to assign an available identification code to the at least one mobile terminal in the event the at least one mobile terminal is requesting an available identification code be assigned, the particular mobile terminal employing the available identification code to register to the network backbone substantially constantly from each of a plurality of cells while the at least one mobile terminal is roaming - -“

Based on this passage in *Hulthen* and the above assertion, the Examiner contends that it is clear that once the mobile node is temporarily connected to the foreign network (roaming), the unique identification code assigned is indeed temporary so as long as the mobile device remains in the foreign network. In this manner, the Examiner advances a conclusory statement in that once the mobile node moves to another foreign network, it would have to register with that foreign network and thus again be assigned temporary flow identification information. As noted above, nowhere does *Hulthen* teach or suggest even remotely assigning the temporarily flow identification information to a quality of service session to be configured, as set forth in the claimed invention.

To provide alleged suggestion or motivation for combining *Agraharam* and *Hulthen*, the Examiner relies on *Hulthen*. According to the Examiner the motivation as suggested by *Hulthen*, would be to assign a unique identification flow information to each mobile host registered in a foreign network [col. 10, lines 42-47]. By maintaining a current table of available identification codes (fig. B) that may be assigned to a mobile node desiring to access a network [col. 10, lines 42-47, col. 15, line 54-col. 16, line 17], the Examiner responds that it would ensure that a subsequent mobile node joining the foreign network would not be assigned temporary flow identification information that is already in use by another mobile node.

However, *Hulthen*, is completely silent with regard to the flow identification information, in the IP packets that are directed to the mobile node, being assigned to a quality of service session to be configured. The flow identification information in the IP packets, which the Examiner alleges corresponds to the identification code or the mobile ID, is not the flow identification information of an existing quality of service session. Instead, it is the mobile identification code and/or the random number, which *Hulthen* uses to differentiate the mobile communication units.

Claim 1 calls for a method of establishing an internet protocol (IP) quality of service session between a correspondent node and a mobile node. The quality of service session may be maintained based on flow identification information in the IP packets that are directed to the mobile node from the correspondent node via the home network. The method comprises determining whether the flow identification information of a quality of service session to be configured matches the flow identification information of an existing quality of service session. In response to a match, the method calls for allocating temporary flow identification information to the quality of service session to be configured.

The Examiner alleges that a combination of *Agraharam* and *Hulthen* teaches or suggests one or more claimed features in claim 1. The Applicant respectfully disagrees. The Examiner's reliance on the combination of *Agraharam* and *Hulthen* is erroneous. *Hulthen* uses the mobile identification code to designate and distinguish the mobile communication unit 66 from the other mobile communication units 66. *Hulthen* determines mobile identification for a session with a host computer, base station or other device. A random number generated by the mobile communication unit 66 may further designate and distinguish the mobile communication unit. See col. 8, lines 28-40 in *Hulthen*, col. 2, lines 54-55. *Hulthen* teaches matching the random number, sent from the mobile communication unit 66 requesting the session, to the mobile ID stored in a table of available identification code. This assigning a unique mobile ID is distinct from allocating temporary flow identification information to the quality of service session to be configured feature in claim 1.

Hulthen teaches that a mobile communication unit may select the same temporary ID that another mobile communication unit has selected for a pending request. See *Hulthen* col. 10, lines 57-63. By selecting a temporary mobile ID code, the mobile communication unit requests the host computer to assign it a unique mobile ID code for future use. The processor 103 checks to see if the temporary mobile ID with which the mobile communication unit 66 is requesting a session is currently available as determined by reviewing the table of available identification code. See *Hulthen*, col. 10, lines 11-13, and lines 22-26. Thus, *Hulthen* teaches selecting the same temporary ID by multiple mobile communication units. Moreover, the temporary mobile ID of *Hulthen* is associated with a particular request for a session from mobile communication units 66. In *Hulthen*, two or more requests may be pending for a single mobile ID from different mobile communication units 66 which have randomly selected the same temporarily ID. A

unique mobile ID is to be assigned for such a request for a session from mobile communication units 66.

Accordingly, the Examiner cannot contend that *Hulthen* teaches assigning temporary flow identification information to the quality of service session to be configured because the Examiner argues that this “unique mobile ID” corresponds to the “temporary flow identification information” recited in claim 1. In other words, the Examiner cannot use assigning of a unique mobile ID stored in a table for requests of starting a session based on a selected non-unique temporary mobile ID to satisfy allocating temporary flow identification information in the IP packets. This is clearly improper. The Examiner relies upon the *Hulthen* reference to describe missing features of *Agraharam*. However, the *Hulthen* reference fails to remedy the fundamental deficiency of *Agraharam*.

The cited references also fail to provide any suggestion or motivation for the Examiner’s proposed modifications and/or combinations of the prior art. As discussed above, temporary flow identification information and a unique mobile ID stored in a table for requests of starting a session based on a selected non-unique temporary mobile ID are not the same. However, the Examiner’s rejections require that the primary reference be modified to arrive at the claimed invention, *i.e.*, the temporary foreign address described by *Agraharam* must be replaced by unique mobile ID stored in a table for requests of starting a session based on a selected non-unique temporary mobile ID described by *Hulthen*. Accordingly, Applicant respectfully submits that *Hulthen* teaches away from this modification. In particular, *Hulthen* teaches that first not a unique temporary mobile ID is necessarily associated with a particular request for a session from a mobile communication unit 66 to which a unique mobile ID is to be later assigned for that request for a session. Since a unique mobile ID stored in a table is assigned based on non-unique

temporary mobile IDs selected by mobile communication units 66 for requests of starting a session, Applicant respectfully submit that *Hulthen* teaches away from allocating flow identification information to the quality of service session to be configured in the temporary manner set forth in claims 1 and 9, because the flow identification set forth in these claims is temporarily assigned responsive to a match between proposed and current flow identification information. It is by now well established that teaching away by the prior art constitutes *prima facie* evidence that the claimed invention is not obvious.

For at least the aforementioned reasons, Applicant respectfully submits that Examiner has failed to make a *prima facie* case of obviousness over *Agraharam* and *Hulthen*, considered either alone or in combination. Applicant requests that the Examiner's rejection of claims 1, 4, 8-10, 12, and 13 under 35 U.S.C. §103(a) be withdrawn.

The Examiner relies on U.S. Patent No. 6,697,354 to Borella, et al. (*Borella*) to reject claims 5, 6, and 14, arguing that the combination of cited references teach the rejected claims. The Applicant respectfully disagrees. Arguments with respect to the rejected dependent claims 5, 6, and 14 have been noted. However, in view of the aforementioned reasons, the Examiner's rejection is traversed and therefore not specifically addressed. To the extent the characterizations of the prior art references or Applicant's claimed subject matter are not specifically addressed, it is to be understood that Applicant does not acquiesce to such characterization. Reconsideration of the present application is respectfully requested. In light of the arguments presented above, Applicant respectfully assert that claims 5, 6, and 14 are in condition for allowance. Accordingly, a notice of allowance is respectfully requested.

In view of the foregoing, Applicant respectfully submits that all pending claims are in condition for allowance. The Examiner is invited to contact the undersigned at (713) 934-4055 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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IN THE DRAWINGS

The Examiner objected to the drawings. In particular, the Examiner asserts that Figures 1-4(a) should be designated by a legend such as - - Prior Art - - because only that which is old is illustrated. The Applicant disagrees and respectfully traverses the objections to Figures 1-4(a) in view of the remarks set forth below.

Embodiments of the present invention relate to messages conforming to the mobile Internet protocol (mobile IP) and sent from a host node in a network to a mobile node, and particularly to maintaining a desired quality of service when any mobile host node changes its point of network attachment in a foreign network including a foreign agent. By way of example, Figures 1-4(a) schematically illustrate an exemplary mobile IP environment in which the present invention may be utilized. In this environment, a mobile Internet Protocol (IP) quality of service may be supported for a foreign network with a foreign agent and a plurality of mobile nodes. However, labeling of the Figures 1-4(a) to be - - Prior Art - - would undermine the written description requirement for the disclosure of the embodiments of the instant patent application. Accordingly, reconsideration of the objections to the drawings is respectfully requested by the Examiner.